

Utah State Developmental Center Boiler Replacement and Heating Plant Building Repairs

DFCM Project No. 08194410

October 06, 2008

Mandatory Pre-Proposal Meeting Attendees

(Please print clearly, this sheet will be scanned and posted on the DFCM web site under the project information)

PRIME FIRM NAME	CONTACT	ADDRESS	PHONE	FAX	EMAIL
VBFA	Ken Ekenstam	330 S. 300 E SLC, UT 84111	801-530-3148	801-530-3150	kekenstam@vbfa.com
HFS ARCHITECTS	Barry Smith	1484 S. STATE ST. SLC, UT 84115	801-596-0691	801-596-0693	BSMITH@HFSA.COM
WHW ENGINEERING INC.	STEVE WADSWORTH	8619 S. SANDY PARKWAY #101 SANDY, UTAH 84070	801-466-4021	801-466-8536	STEVE@WHW-ENGINEERING.COM
WHW ENGINEERING INC.	PAUL WADSWORTH	8619 S. SANDY PARKWAY #101 SANDY, UTAH 84070	801-466-4021	801-466-8536	paul@whw-engineering.com
Eaton Architecture	Mike Anderson Lyndy Lovebeck	77 W. 200 S STE 302 Salt Lake City UT 84101	801-328-2982	801-328-2111	mike@eatonarch.com lyndy@eatonarch.com
Spectrum Engineers	Heather King	175 S. Main St. #300 SLC, UT 84111	801-401-8492	801-328-5155	hik@spectrum-engineers.com
Stanley Consultants	Noe Carolino	5353 S. 960 E. ST. #220 SLC. UT 84117	801-971-8090	801-293-8886	carolinonoe@stanleygroup.com
TRACY STOKING & ASSOCIATES	TRACY STOKING	17 EXCHANGE PLAZA SLC, UT 84111	801-463-7103	801-463-7966	TRACY@TSA-USA.COM
VBFA	Steve Shepherd	330 S. 300 E SLC, UT 84111	801-530-3146	801-530-3150	Sshepherd@vbfa.com

**Boiler Replacement and Heating
Plant Building Repairs
Utah State Developmental Center
American Fork, Utah**

**Solicitation for Architect / Engineer Services
Mandatory Pre-proposal Meeting Information**

DFCM Project No. 08194410

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15. Selection Criteria for VBS Professional Services

The following criteria will be used in ranking each of the teams. The team that is ranked the highest will represent the best value for the state. The criteria are not listed in any priority order. The selection committee will consider all criteria in performing a comprehensive evaluation of the proposal. Weights have been assigned to each criteria in the form of points.

- A. DFCM Past Performance Rating (25 Points). Each prime firm will be given a past performance rating. The rating will be based first on how well the firm did on past projects with DFCM. If a minimum of three DFCM past performance ratings are not available a rating will be established using any DFCM past performance ratings that are available, supplemented by references supplied by the firm at the time the Management Plans and SOQ are submitted.
- B. Strength of Team (30 Points). Based on the statements of qualifications, the interview, and management plan, the selection team shall evaluate the expertise and experience of the team and the project lead as it relates to this project in size, complexity, quality, duration, etc. Consideration will also be given to the strength brought to the team by critical consultants including how they were selected and the success the team has had in the past in similar projects.
- C. Project Management Approach (20 Points). Based on the information provided in the statements of qualifications, the management plan and information presented in the interview the selection team shall evaluate how each team has planned to approach the project. The selection team will also evaluate the degree to which risks to the success of the project have been identified and a reasonable solution has been presented.
- D. Schedule (25 Points). The A/E's schedule will be evaluated as to how well it meets the objectives of the project. Unless other objectives are stated the shorter the duration that is evaluated to be feasible while achieving an appropriate design is preferred. The A/E shall discuss during the interview the project schedule identifying major work items with start and stop dates that are realistic and critical sub consultants and if they have reviewed and agree to the schedule. The completion dates shown on the schedule will be used in the contract.

TOTAL POSSIBLE POINTS: 100 POINTS

PROJECT SCHEDULE

PROJECT NAME: USDC Boiler Replacement and Heating Plant Building Repairs				
DFCM PROJECT #: 08194410				
<i>Event</i>	Day	Date	Time	Place
Solicitation for A/E Services Available	Tuesday	Sept. 30, 2008	3:00 PM	DFCM 4110 State Office Bldg SLC, UT and the DFCM web site*
Mandatory Pre-submittal Meeting	Monday	Oct. 06, 2008	10:00 AM	**USDC Administration Bldg. Conference Room B, American Fork, Utah
Last Day to Submit Questions	Monday	Oct. 13, 2008	2:00 PM	Craig Wessman – DFCM E-mail cwessman@utah.gov Fax (801)-538-3267
Addendum Deadline (exception for bid delays)	Wednesday	Oct. 15, 2008	2:00 PM	DFCM web site *
Management Plans, References, Statements of Qualifications, and Termination / Debarment Certifications Due	Monday	Oct. 20, 2008	12:00 Noon	DFCM 4110 State Office Bldg SLC, UT
Short Listing by Selection Committee, if applicable.	Wednesday	Oct. 22, 2008	4:00 PM	DFCM web site *
Interviews	Tuesday	Oct. 28, 2008	8:30 AM	DFCM 4110 State Office Bldg SLC, UT
Announcement	Wednesday	Oct. 29, 2008	4:00 PM	DFCM web site *

*DFCM's web site address is <http://dfcm.utah.gov>.

** See the site map for the location of the Administration Bldg. on the Utah State Developmental Center Campus. Parking is available to the west of the Administration Bldg.

General Information:

The existing steam boiler plant is located on the south end of the campus of the Utah State Developmental Center. The existing structure for the heating plant is outdated and there are signs of settlement to parts of the building. The intent of this project is to either repair the existing building to meet current seismic code requirements and to stabilize the settlement problem or to build a new building and to demolish the old structure. Part of the early design requirements will be to investigate the costs associated with either option so a decision can be made by the Owner as to the preferred option for the building.

The plant has two gas/oil fired boilers that produce up to 125 psig steam distributed to the buildings on the campus. The associated equipment for the boilers include a condensate deaerator tank, condensate receiver and surge tank, boiler feed pumps, underground fuel oil storage system and pumps, and control systems for the plant.

This project is the replacement of the boilers with a minimum of two new boilers generating steam with dual fuel burners. The sizing of the boilers will be required as a part of the design effort to meet the steam demands for the campus and to provide for additional capacity in the future if needed. In addition to the boilers, a new feed water system is required to replace the existing receivers, deaerator, and pumping system. The existing oil storage system will remain but new pumps, oil monitoring system, and piping to the new boilers will be required. The project will require a new permit to the Division of Air Quality for the State of Utah. The new boilers will be required to meet the air quality standards for the State of Utah. New controls for the boiler plant will also be required. Water treatment for the makeup water to the steam system is included as part of the project.

There is an existing tunnel system on the campus used for the steam and condensate piping distribution to the buildings. The new building if built will be required to reconnect to the existing piping distribution system.

Electrical requirements are to provide the power needed for the new equipment and to update the lighting as needed.

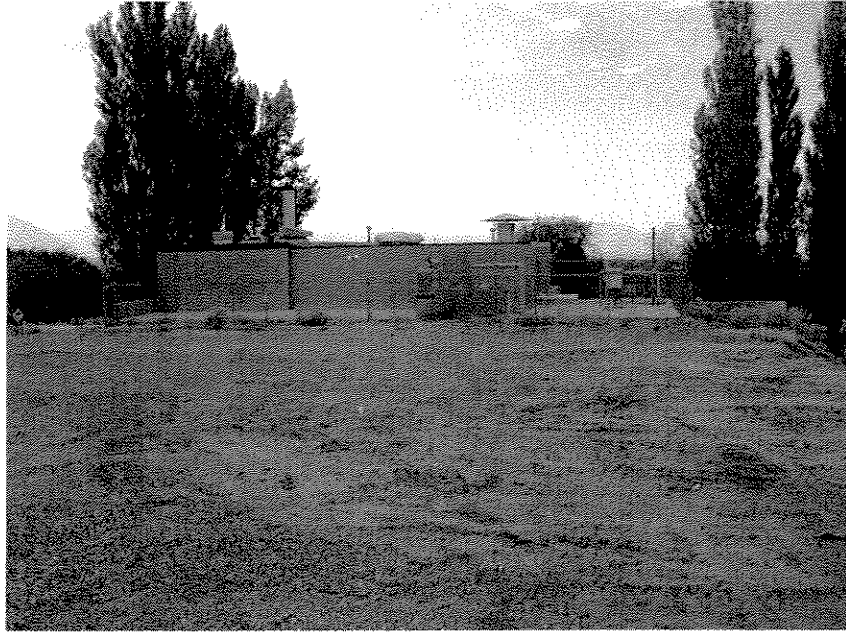
Scheduling of the project should include the design period required with an early spring bidding process for construction. The critical issue involved in the construction is that steam must be provided on campus throughout the construction period. How the phasing of construction and the maintaining of a steam supply on campus should be addressed in the management plan.

Expanded Information

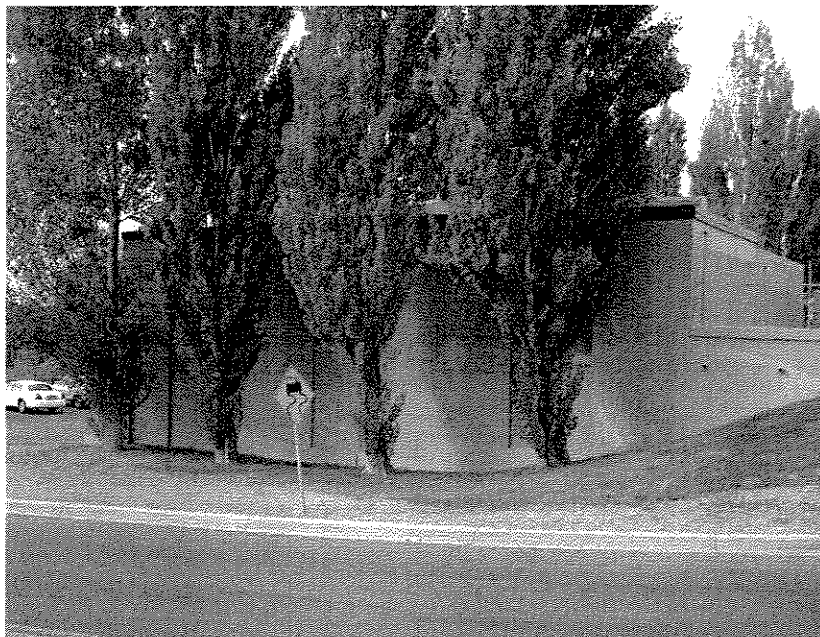
Building Information:

The building is located on the southwest portion of the campus. The building was constructed at different times. Construction of the building was in the 1950's and the addition in the 1960's. The construction is concrete with block infill. The following pictures give the views of the building.

North view of the building. Location of emergency generator and the underground fuel oil storage tank.



East side of the heating plant.



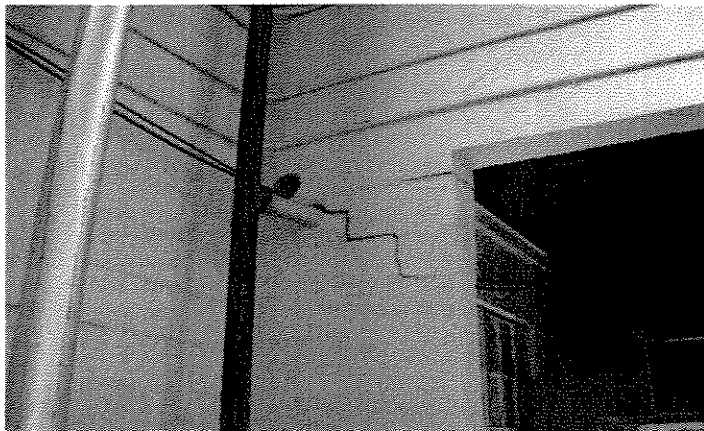
View from the southwest showing the south and west facing areas of the Heating Plant.



Settlement at the foundation wall on the south side of the building.



Additional settlement cracking inside of building along the south wall.



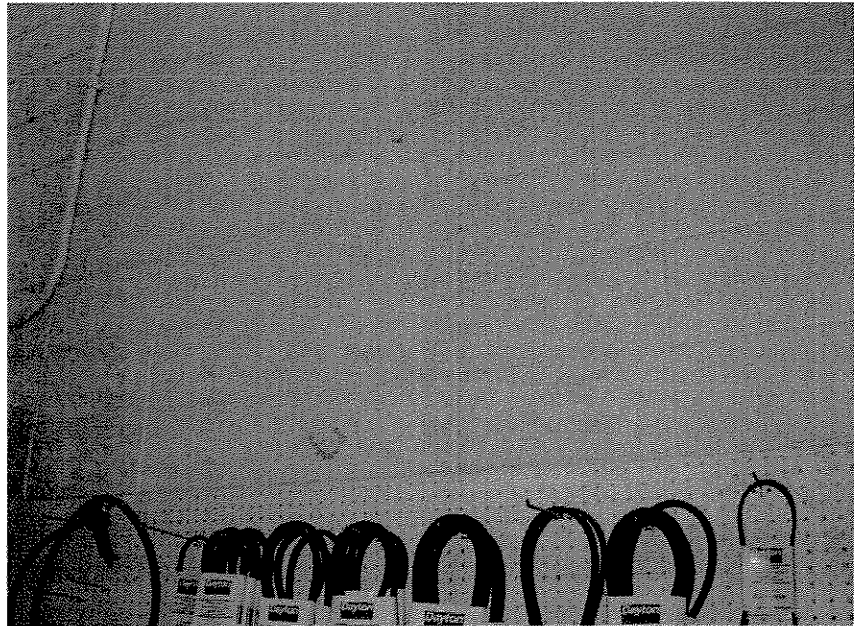
Northwest view of Heating Plant. Excavated area is the result of a recent demolition project which removed an old storage shed. The piping tunnel runs along the east side of the excavation.



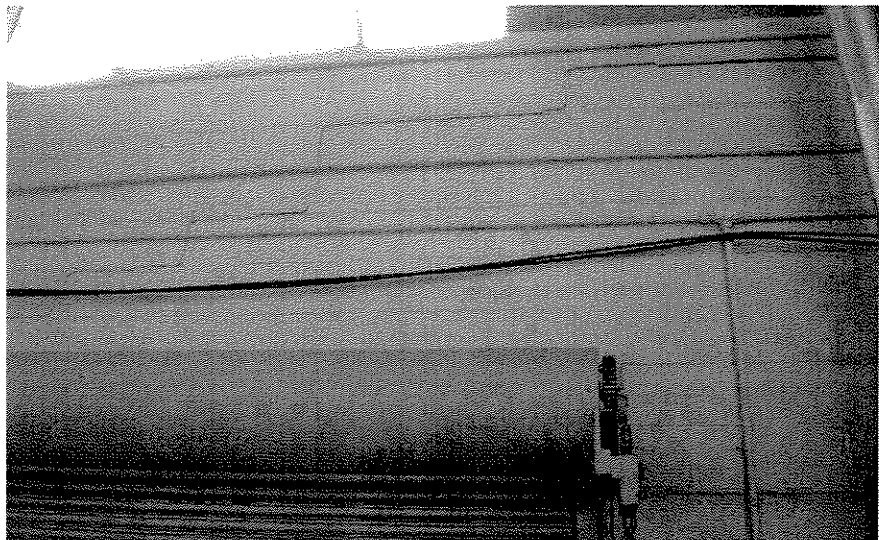
Inside of tunnel as it extends to the north from the Heating Plant. This tunnel is located at the northwest corner of the Heating Plant.



Damage to block wall
along the east wall of the
Heating Plant.



Additional cracking
above the overhead
door located in the
south wall of the
Heating Plant.



Mechanical Information:

There are two boilers in the existing Heating Plant. Both of the boilers were originally coal fired and have since been converted with burners utilizing natural gas as the primary fuel and fuel oil as back-up fuel. The older boiler is a Bros Boiler and located on the east side of the building. This boiler shows a manufacturing date of 1957. This boiler is used primarily used as a secondary boiler. The second boiler located on the west side of the

Heating Plant is a Keeler boiler. The Keeler boiler was manufactured in 1966. Additional information on each boiler is indicated with additional pictures.

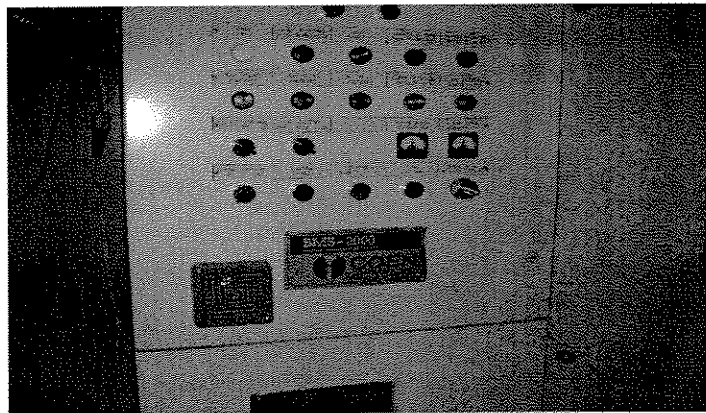
The capacity of the each boiler is approximately 30,000 lbs/hr of steam at 125 psig. The boilers are currently oversized for the loads on campus. There is a steam metering chart recorder with charts available as needed for the selected design team. The load recorded on the chart on Thursday Oct. 2, 2008 at approximately 10:30 AM was 6,327 lbs/hr. Steam is required year round and sizing of the new boilers should consider the low demand and peak demand on campus to operate efficiently. Due to the critical requirement for steam 24 hours per day, the number and size of the boilers should also provide for redundancy if one boiler fails to operate.

Additional equipment requirements for the Heating Plant is the condensate receiver, transfer pumps, deareator, boiler feed system, boiler blow-down system, and automation of the plant.

Bros Boiler Manufacturing
Plate with the Following
information: Class S14-20
Max AWP 160 psi
Boiler HS 2325 SF
WW HS 575 SF
MFG Serial #2080-57
Inspection Serial #HSB 9848



Burner control panel for the
Bros Boiler.



Boiler #2 is a Keeler Boiler with the following information:

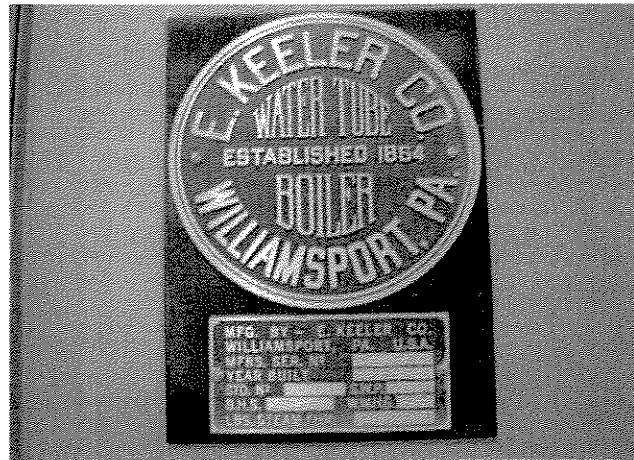
Serial No. 14407

Year Built 1966

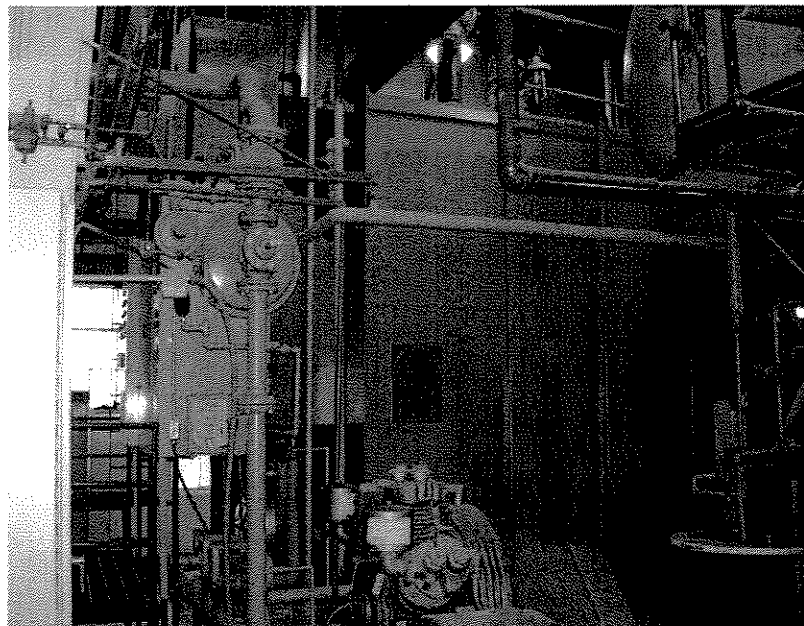
Std. No. NB 4226

BHS 2318 WWHS 635

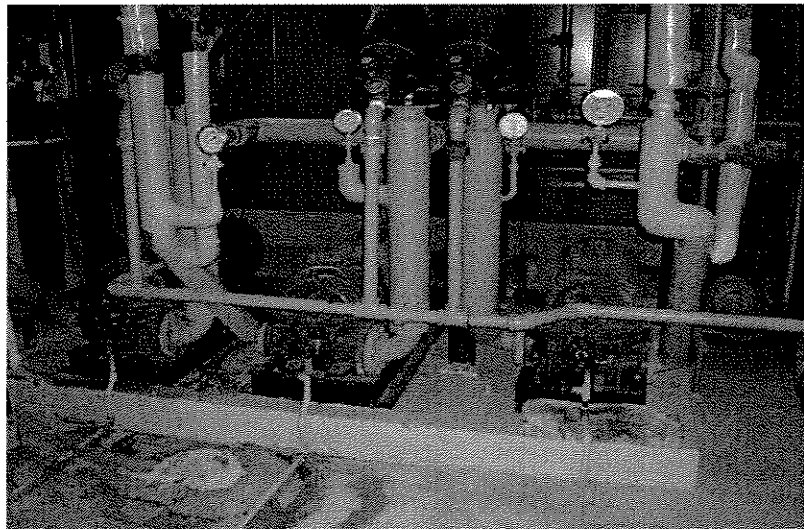
IBS STEAM/HR 30,000



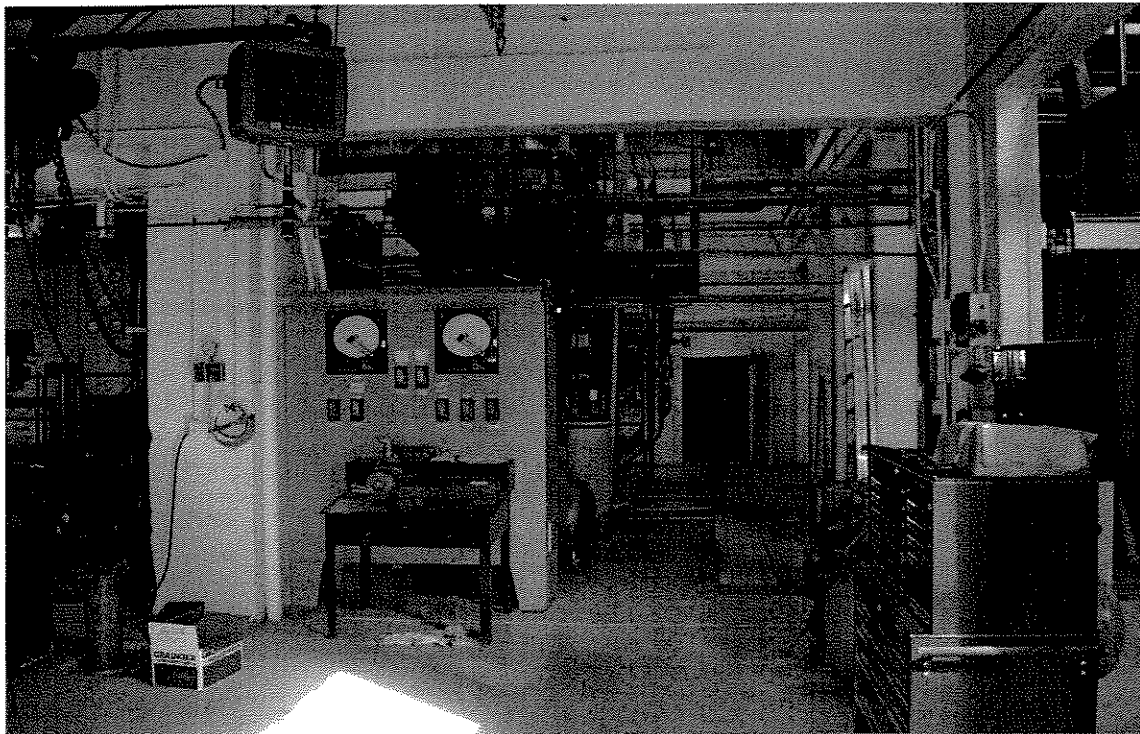
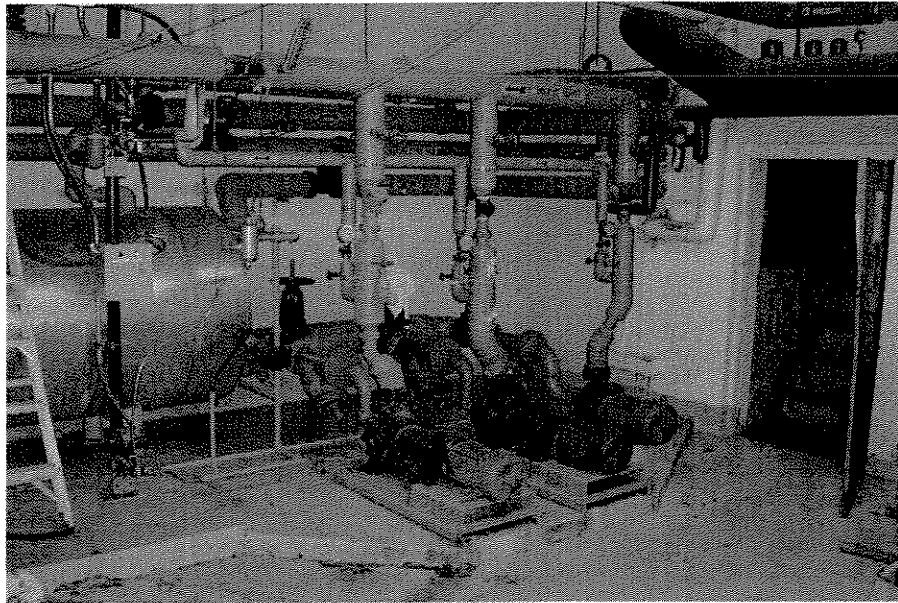
Keeler Boiler.



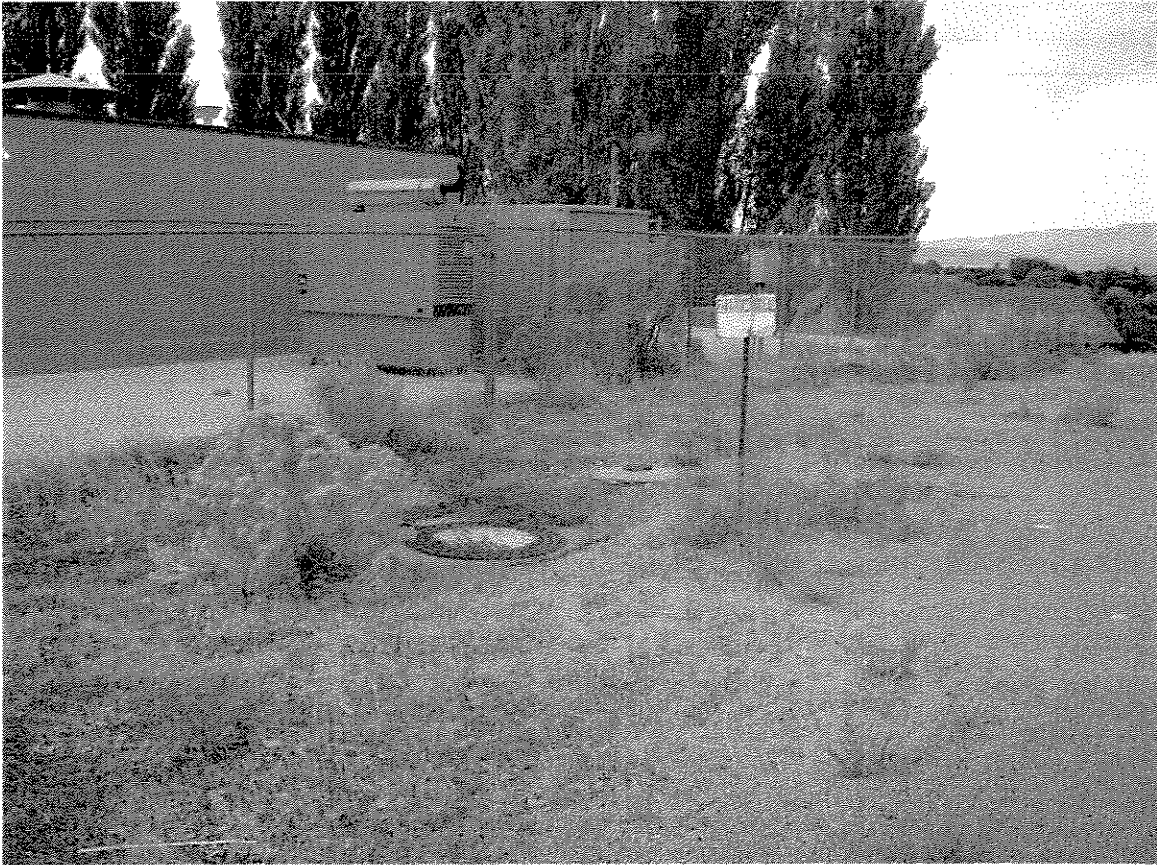
Boiler Feed Pumps located underneath the Dearactor Tank.



Condensate receiver tank and transfer pumps. The entrance to the tunnel is located to the right of the picture.



Inside the Heating Plant looking north. The Keeler boiler is located to the left (west side of plant) and the Bros boiler is located to the right (east side of plant). The dearaetor tank and boiler feed pumps are located in the middle of the picture.



Location of the underground fuel oil storage tank and the emergency generator located on the north side of the Heating Plant. This view is looking to the west.

Notes: